Just arrived!

Lapp new products 2008

LAPP GROUP

Lapp Group Headquarter in Germany

Lapp Kabel is one of the foremost suppliers of cables and cable accessories worldwide. In 1957, company founder Oskar Lapp developed ÖLFLEX®, the first industrially manufactured control cable in the world. Today, cables are available for mechanical engineering, the automotive industry, measurement and control technology, electrical and installation engineering, EDP and many other fields of applications.
Lapp Kabel products are mainly manufactured at the Lapp Group production units. As a result, at present more than 40.000 different standard items are ready ex-works.
For customer-related solutions, special cables and conduits are designed and manufactured separately.

The Lapp Center in Stuttgart-Vaihingen

Our business hours

Sales/Germany:
Mon-Thu 7.00 - 18.00 h
Fri 7.00 - 16.00 h

Self collection:
Mon-Fri 7.00 - 19.00 h

Export:
Mon-Thu 7.00 - 18.00 h
Fri 7.00 - 17.00 h

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Hanover branch
Wiesenauer Straße 2
D-30179 Hannover
Tel. +49(0)511/37293-0
Fax +49(0)511/37293-30

Ready for dispatch: cable drums in the factory at Forbach/France

Fully automatic small component warehousing system in the Logistic Center I in Stuttgart/Vaihingen

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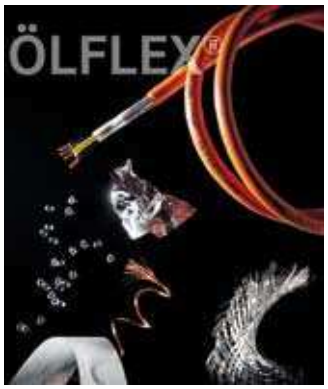
Our international brands

ÖLFLEX® Connection and control cables



ÖLFLEX® is used in machinery, machine tools, system and appliance engineering, measuring, control, heating and air conditioning technologies. For permanent connections or in cable chains, halogen-free or internationally certified, you can choose from our comprehensive range of standard products.

UNITRONIC® Data cables

Lapp produces a full range of data cables for fast and secure transfers of large volumes of data. From machine electronics and bus systems to super-fast LAN data networks or highly-versatile applications: We have the data cables you need for virtually any situation.

HITRONIC® Fibre optic cables

HITRONIC® fibre optic cables are designed to transfer large volumes of data. Communications media via fibre optics are fast, efficient, and secure. Not even electromagnetic interference can affect **HITRONIC®** fibre optic cable. The **HITRONIC®** range of products includes cables for office communications, industrial applications, simplex, duplex, hybrid wiring, or cable chain applications.

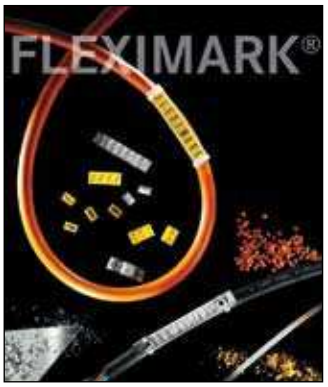
SKINTOP® Cable glands

SKINTOP® cable glands guarantee secure connections every time. Simply thread the cable and twist. That's all! Your cables are perfectly centered, secured, hermetically sealed, and ready for action. Choose from a wide range of models in plastic or brass, for EX and EMC applications, halogen-free types or anti-kink protection, metric, PG or NPT.

SILVYN® Cable protection and guiding systems

In many applications cables have to be additionally protected against mechanical and chemical stress. For this type of application, Lapp Kabel can supply the universal **SILVYN®** protective cable conduit program. Cable conduits manufactured from metal or plastic material, which can be used with matching glands to form a perfect system connection. The complete system results in all round protection for cables in indoor and outdoor installations. With **SILVYN® CHAIN**, Lapp Kabel's widely variable programme of power chains we offer both cable protection and guidance for highly dynamic applications.

FLEXIMARK® Marking systems

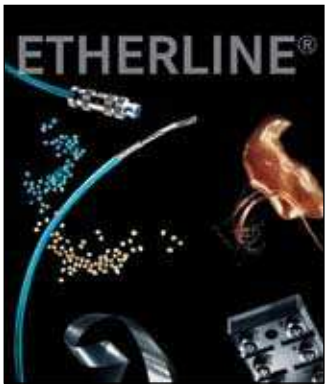


Labels on single cores, cables, and control cabinets need to remain legible for years to come. This is the best way to keep things well organized and avoid potential problems. From plastic to durable stainless steel, manual or electronic identification, with **FLEXIMARK®** you can be sure that your labels will last a lifetime.

EPIC® Industrial connectors

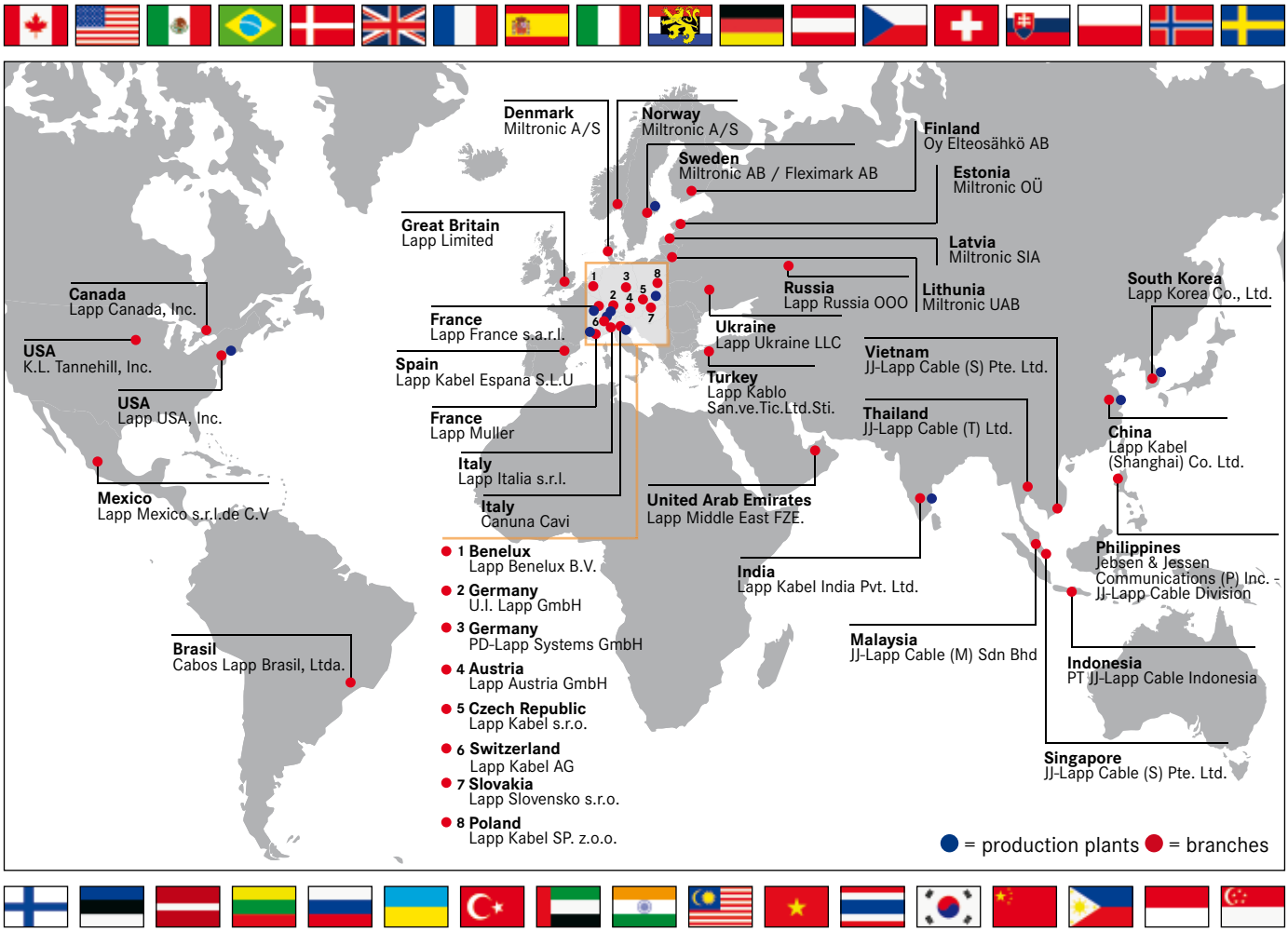
When we talk about secure connections, you can take us at our word. **EPIC®** industrial connectors produce an absolutely secure connection in combination with **ÖLFLEX®** cables. We provide the right contact for all your needs: From rectangular or circular connectors, to housings, inserts, contacts and accessories, bus or fibre optic cable applications.

ETHERLINE® Industrial Ethernet components



The Lapp Group is now in a position to offer comprehensive system solutions in the field of industrial networking. Its Factory Automation division supplies active network components that are used to supplement existing cable and plug technologies. These include services and security systems incorporating firewall solutions, in addition to distribution components such as switches, routers, cables and plug connectors. For its industrial customers, all of this means that a solution from the Lapp Group represents a considerable step forward in terms of security, safety and availability.

The Lapp Group worldwide



The Lapp Group around the world

The Lapp Group is an internationally active family business with headquarters in Stuttgart. Around the world, 3,000 employees in 17 production sites, 39 distribution companies and more than 100 agencies are involved in production, marketing and providing advice and service to customers.

„Think global, act local“ is seen less as a slogan, but more as part of the company philosophy. After all, a strong customer focus is something we achieve all the time. This by no means contradicts our clear commitment to Stuttgart and to Germany. In addition to Germany, there are six other production sites in Europe.

With the acquisition of other business skills, the Lapp Group intends to expand its range of products and to open up new markets.

Three other production sites in Asia – with the emphasis on the boom country of India – and two in the USA support the export industry in Germany and Europe and help our customers exploit these markets.

On the one hand this provides the greatest possible proximity to customers, while on the other enables local requirements and regulations to be taken into account. Further benefits ensue, e.g. the elimination of transportation costs without having to sacrifice the high quality reputation of „Made by Lapp“.

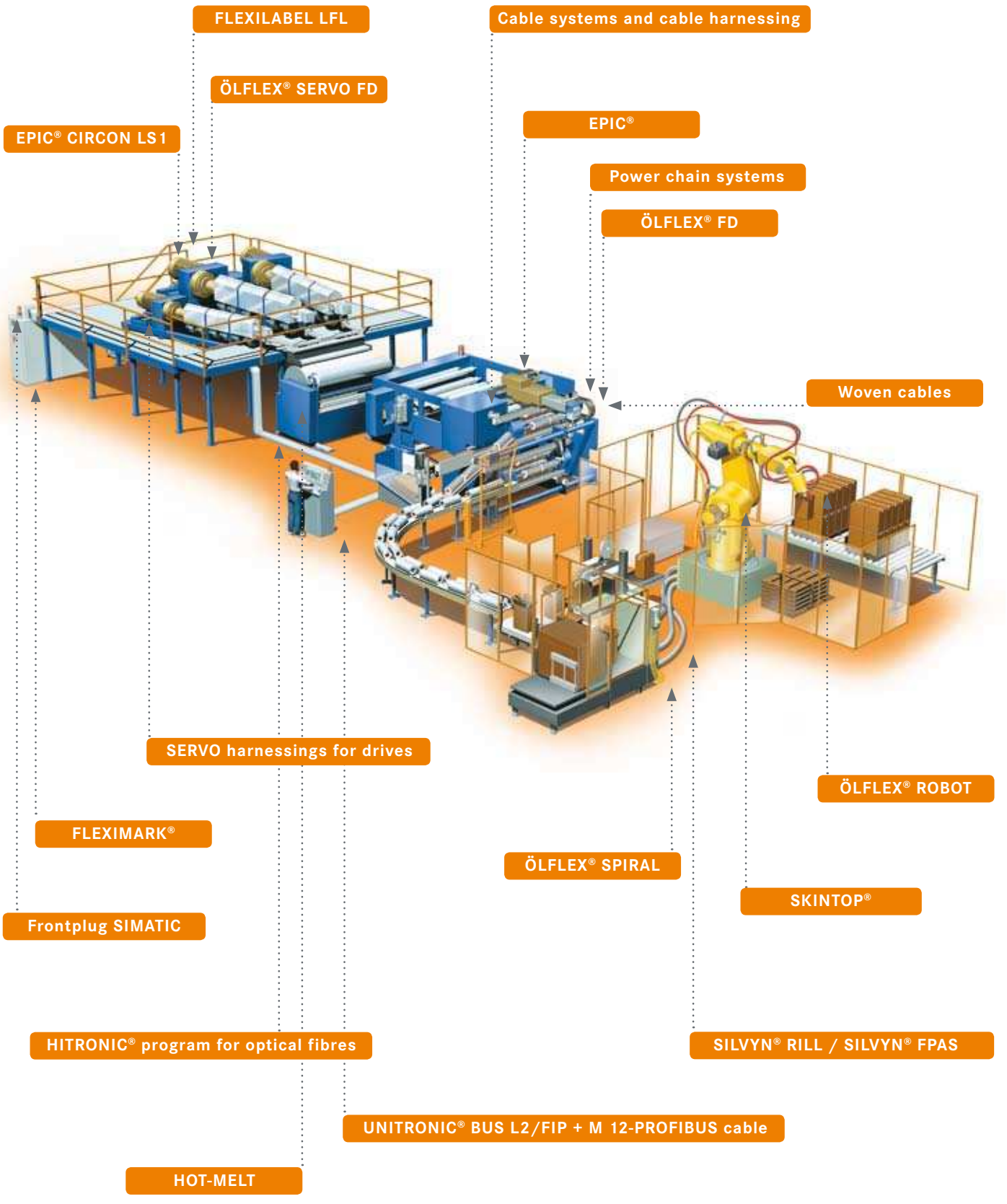
Lapp’s own Centers of Competence for the advanced training of employees and customers, e.g. in India, Thailand and Russia, round off our range of services.

Larger companies, such as those in Russia, India, China, Canada and Mexico, have their own warehouses. The other companies are quickly and reliably supplied from the relevant central stores.

To contact your local Lapp Group representative please go to
www.lappgroup.com/worldwide

Lapp, the system provider

Lapp Kabel offers a complete range of cables for the most varied types of application. Obtaining everything from a single source means that designers, planners and manufacturers can be certain of qualified advice and consistently high quality, plus a simpler ordering process and the confidence that everything is totally coordinated.



Service meets Quality

SKINTOP® 3D-Data – support for construction and design engineering

SKINCAD 3D

The 3D/CAD online product catalogue for SKINTOP® and SKINDICHT® cable glands attests that Lapp lives uo to is reputation as a market leader and technical innovator. This toos gives support to our customers, mainly construction engineers and designers, in searching for suitable cable glands

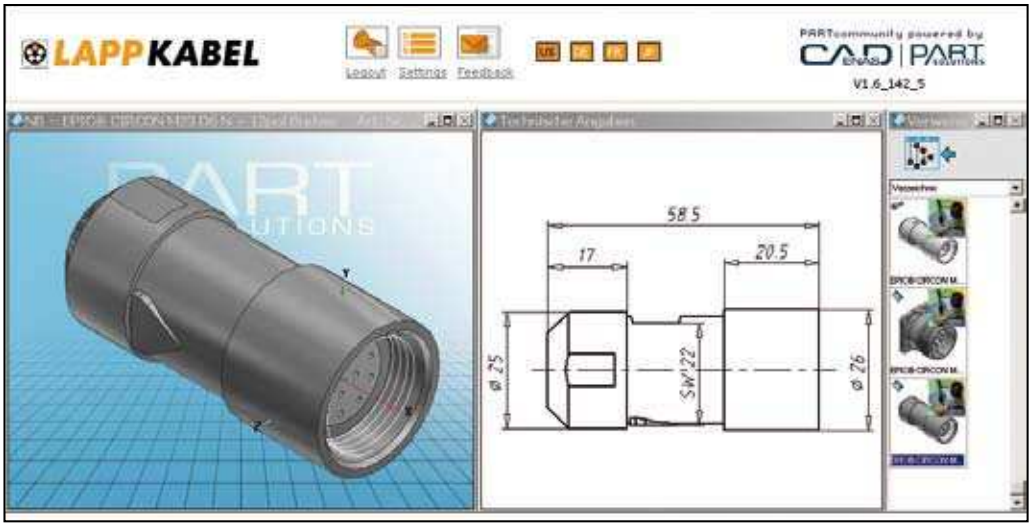
The benefits are:

- quick, secure and easy import of ready-made gland models into your CAD-system
- various output formats, e.g.: DXF, IGES, SAT, STEP
- saves a huge amount of time and cuts design costs
- Avoids errors in part design

www.lappkabel.de/en/skincad

Service meets Quality

EPIC® 3D-Data – support for construction and design engineering



EPIC® 3D

You have choosen a connector in the online cataloge or you have created one by using the connector finder. Now not only data sheets with technical specifications are available, but also 3D-data for your CAD-system

The benefits are:

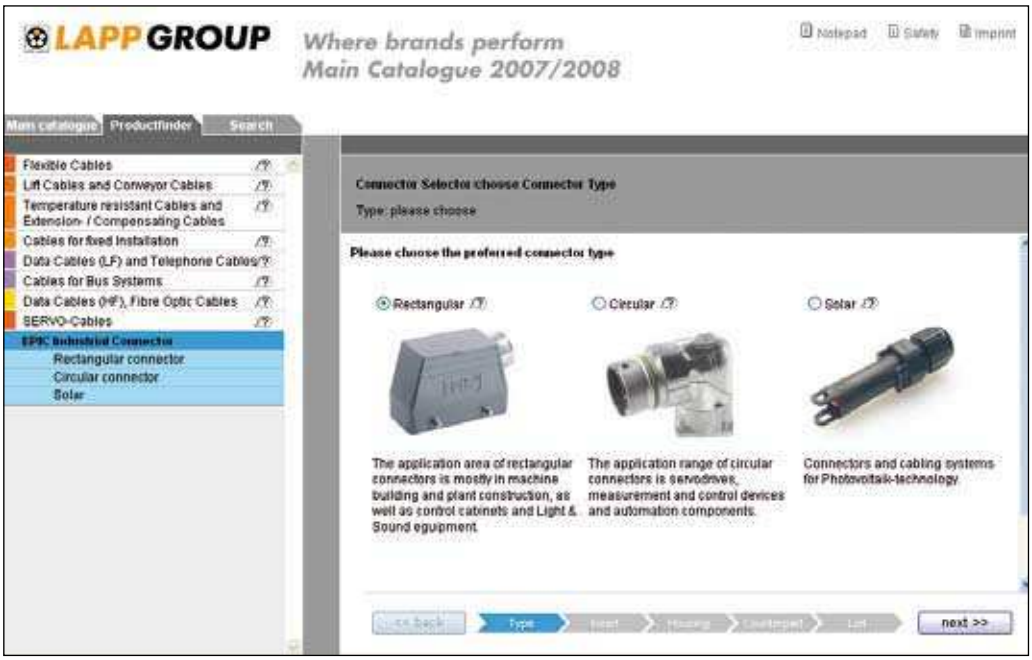
- quick, secure and easy import of ready-made connector models and component parts into your CAD-system
- various output formats, e.g.: DXF, IGES, SAT, STEP
- saves a huge amount of time and cuts design costs
- Avoids errors in part design and configuration of your connector

www.lappkabel.de/en/skincad

Service meets Quality

EPIC® Product finder

Get fast and easy
the right connector!
Configure out of thousands of single components the EPIC® Industrial connector which fits exactly to your requirements.
Straight to Connector Selector:
www.lappgroup.com/connector


LAPP GROUP
Where brands perform
Main Catalogue 2007/2008
Notepad
Safety
Imprint
Main catalogue
Productfinder
Search
Flexible Cables
Lift Cables and Conveyor Cables
Temperature resistant Cables and Extension- / Compensating Cables
Cables for fixed Installation
Data Cables (LF) and Telephone Cables
Cables for Bus Systems
Data Cables (HF), Fibre Optic Cables
SERVO-Cables
EPIC Industrial Connector
Rectangular connector
Circular connector
Solar
Connector Selector choose Connector Type
Type: please choose
Please choose the preferred connector type
Rectangular
Circular
Solar
The application area of rectangular connectors is mostly in machine building and plant construction, as well as control cabinets and Light & Sound equipment
The application range of circular connectors is servodrives, measurement and control devices and automation components
Connectors and cabling systems for Photovoltaik-technology
next >>

Support for configuration of industrial connectors

Connector-Finder

Configure your customized connector with the EPIC® Connector Finder. For EPIC® rectangular connectors, circular connectors and solar connectors. After the input of the technical parameter, you can choose the suitable connector-insert. In addition, the suitable connector-housing family will be suggested.

Again you select the convenient part. As requested, you can choose the fitting counter part.

Additional technical specification of the product are available by links at any time of your search Your selected component parts will be put on a list. During the time, you needed to read these lines, you nearly select a complete connector. Please test it!

www.lappgroup.com/connector

Service meets Quality

Cable-Connector-Finder

LAPP KABEL
EPIC®
industrial connectors
Company
Brands
Products
Industries
Services
Events & PR
You are here: Products → Cable connector guide
System Solutions
System competence
Reference projects
NFPA 79
Cable connector guide
Search for a compatible cable / connector
Do you search the compatible connector to your Servo Cable of Lapp Kabel?
Our cable / connector Search will help you.
Please type in the Lapp Kabel artikelnumber of the cable into the textfield and press the Search Button.
You will get all collected compatible connectors to your Lapp Kabel cable of our product line with a link to our webcatalog.
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You have a SERVO-cable and search for the suitable EPIC® CIRCON circular connector? No problem! You type in the Lapp part number of your ÖLFLEX® SERVO cable into the searching field of this tool. The Cable-Connector-Finder shows you the suitable connector for your cable, e.g.: the power connector LS1 or the signal connector M23.

There tool will be successful in finding connectors to the product range of the following SERVO-cables.

www.lappkabel.de/en/products

New

ÖLFLEX® CLASSIC 130 H 0,6/1kV

Halogen-free, highly flame-retardant control cable
Nominal voltage 0,6/1kV; UV-resistant

LAPP KABEL STUTTGART ÖLFLEX® CLASSIC 130 H 0,6/1KV HFFR IEC 60332-3 ROHS CE
LAPP KABEL STUTTGART ÖLFLEX® CLASSIC 130 H 0,6/1KV HFFR IEC 60332-3 ROHS CE

Application
- Suitable for fixed installation under medium mechanical load conditions as well as for flexing application at free, non-continuously recurring movement without tensile load or compulsory guidance

Area of use:
- Public facilities
- Airport, Railway Station
- Industrial plants
- Air conditioning systems
- Particularly where human and animal life as well as valuable property are exposed to high risk of fire hazards

Advantage
- UV-light resistant
- Outdoor use (temporary) acc. to appendix A HD 516 S2 resp. VDE 0298-300
- Halogen free acc.to IEC 60754-1 (Amount of halogen acid gas)
- Corrosiveness of combustion gases acc. to IEC 60754-2 (Degree of acidity)
- Toxicity of combustion gases acc. to NES 713 Part 3
- Low smoke density acc. to IEC 61034
- No flame propagation acc. to IEC 60332-3-24 or IEC 60332-3-25
- Flame retardant acc. to IEC 60332-1-2 (Flame spread on single cable or wire)
- Asbestos-, CFC-, lead- and silicone-free

Worth knowing
Accessories
- SKINTOP® and SKINDICHT® cable glands
- SILVYN® Cable Conduit Systems
- FLEXIMARK® Cable Marking

Comparable products:
- Halogenfree colour code: ÖLFLEX® CLASSIC 100 H
- Halogenfree number code: ÖLFLEX® CLASSIC 110 H ÖLFLEX® CLASSIC 130 H
- Power chain suitable halogen-free cables: ÖLFLEX® FD 820 H ÖLFLEX® FD 855 P
- PVC version 0,6/1kV: ÖLFLEX® CLASSIC 100 BK Power 0,6/1kV ÖLFLEX® CLASSIC 110 Black 0,6/1kV

Cable Make-up
- Fine strands of bare copper wires
- Halogen-free core insulation
- Core coding, see “technical data”
- Cores twisted in layers
- Sheath of special halogen-free compound
- Sheath colour: black

Technical Data

Core identification code
Up to 5 cores:
colour code acc. to VDE 0293-308
see table T9
starting at 6 cores:
black with white numbers

Based on
HD 21.14 S1
VDE 0281 Part 14

Specific insulation resistance
>10 MOhm x km

Conductor stranding
Fine wire acc. to:
VDE 0295 Kl.5
IEC 60228 Cl.5

Minimum bending radius
Static:
4 x cable diameter
occasionally flexing:
15 x outer diameter

Rated voltage
U_0/U: 600/1000 V

Test voltage
core/core: 4000 V

Protective conductor
G = with protective conductor
X = without protective conductor

Range of temperature
Flexing:
-15 °C to +70 °C
Fixed installation:
-40 °C to +70 °C

ÖLFLEX® CLASSIC 130 H 0,6/1kV

New

Halogen-free, highly flame-retardant control cable
Nominal voltage 0,6/1kV; UV-resistant

CE RoHS

Part number	Number of cores and mm² per conductor	Outer diameter in mm approx.	Copper weight kg/km approx.	Weight kg/km approx.
	ÖLFLEX® CLASSIC 130 H 0,6/1kV - coloured cores			
1123410	2 X 1	8,6	19.2	107
1123411	3 G 1	9.0	28.8	123
1123412	4 G 1	9,6	38.4	144
1123413	5 G 1	10,4	48.0	167
	ÖLFLEX® CLASSIC 130 H 0,6/1kV - numbered cores			
1123414	7 G 1	11,1	67.2	206
1123415	12 G 1	14.0	115.2	314
1123416	18 G 1	16,1	172.8	428
1123417	25 G 1	18,6	240.0	569
	ÖLFLEX® CLASSIC 130 H 0,6/1kV - coloured cores			
1123418	2 X 1.5	9,6	28.8	137
1123419	3 G 1.5	10,1	43.2	161
1123420	4 G 1.5	10,8	57.6	190
1123421	5 G 1.5	11,7	72.0	221
	ÖLFLEX® CLASSIC 130 H 0,6/1kV - numbered cores			
1123422	7 G 1.5	12,6	100.8	276
1123423	12 G 1.5	16,1	172.8	427
1123424	18 G 1.5	18,8	259.2	596
1123425	25 G 1.5	21,7	360.0	799
	ÖLFLEX® CLASSIC 130 H 0,6/1kV - coloured cores			
1123426	2 X 2.5	10,8	48.0	184
1123427	3 G 2.5	11,3	72.0	219
1123428	4 G 2.5	12,2	96.0	262
1123429	5 G 2.5	13,3	120.0	307
	ÖLFLEX® CLASSIC 130 H 0,6/1kV - numbered cores			
1123430	7 G 2.5	14,4	168.0	390
1123431	12 G 2.5	18,7	288.0	624
1123432	18 G 2.5	22.0	432.0	879
1123433	25 G 2.5	25,8	600.0	1,212
	ÖLFLEX® CLASSIC 130 H 0,6/1kV - coloured cores			
1123434	3 G 4	12,6	115.2	290
1123435	4 G 4	13,7	153.6	351
1123436	5 G 4	14,9	192.0	416
1123437	3 G 6	13,9	172.8	377
1123438	4 G 6	15,1	230.4	463
1123439	5 G 6	16,8	288.0	559
1123440	4 G 10	18,7	384.0	757
1123441	5 G 10	20,7	480.0	915
1123442	4 G 16	21,3	614.4	1,070
1123443	5 G 16	23,6	768.0	1,296
1123444	4 G 25	26,2	960.0	1,744

G = with Protective Conductor GNYE; X = without Protective Conductor
Copper price basis: EUR 150 / 100 kg
Standard lengths: (50; 100; 500; 1000) m
Packaging size: Coil < 30 kg, above automatically drum
Please specify the desired make-up (e.g. 1 x 500 m drum or 5 x 100 m coils)

New

ÖLFLEX® CLASSIC 135 CH 0,6/1kV

Halogen-free, highly flame-retardant & screened control cable
Nominal voltage 0,6/1kV; UV-resistant

Application
- Suitable for fixed installation under medium mechanical load conditions as well as for flexing application at free, non-continuously recurring movement without tensile load or compulsory guidance
- Especially in industrial and/or EMC-critical environments

Area of use:
- Public facilities
- Airport, Railway Station
- Industrial plants
- Air conditioning systems
- Particularly where human and animal life as well as valuable property are exposed to high risk of fire hazards

Advantage
- UV-light resistant
- Outdoor use (temporary) acc. to appendix A HD 516 S2 resp. VDE 0298-300
- Halogen free acc.to IEC 60754-1 (Amount of halogen acid gas)
- Corrosiveness of combustion gases acc. to IEC 60754-2 (Degree of acidity)
- Toxicity of combustion gases acc. to NES 713 Part 3
- Low smoke density acc. to IEC 61034
- No flame propagation acc. to IEC 60332-3-24 or IEC 60332-3-25
- Flame retardant acc. to IEC 60332-1-2 (Flame spread on single cable or wire)
- Asbestos-, CFC-, lead- and silicone-free

Worth knowing

Accessories
- SKINTOP® and SKINDICHT® cable glands
- SILVYN® Cable Conduit Systems
- FLEXIMARK® Cable Marking

Comparable products:
- ÖLFLEX® CLASSIC 110 CH
  ÖLFLEX® CLASSIC 135 CH
  ÖLFLEX® ROBUST 215 C
- Power chain suitable halogen-free cables:
  ÖLFLEX® FD 820 CH
  ÖLFLEX® FD 855 CP
  ÖLFLEX® SERVO FD 785 CP
- PVC version 0,6/1kV:
  ÖLFLEX® CLASSIC 110 CY
  Black 0,6/1kV

Cable Make-up
- Fine strands of bare copper wires
- Halogen-free core insulation
- Core coding, see “technical data”
- Cores twisted in layers
- Screen braiding made of tinned copper wires
- Sheath of special halogen-free compound
- Sheath colour: black

Technical Data

Core identification code
Up to 5 cores:
colour code acc. to VDE 0293-308
see table T9
starting at 6 cores:
black with white numbers

Based on
HD 21.14 S1
VDE 0281 Part 14

Specific insulation resistance
>10 MOhm x km

Conductor stranding
Fine wire acc. to:
VDE 0295 Kl.5
IEC 60228 Cl.5

Minimum bending radius
Fixed installation:
6 x cable diameter
occasionally flexing:
20 x outer diameter

Rated voltage
U_0/U: 600/1000 V

Test voltage
core/core: 4000 V
Core/Shielding: 2000 V

Protective conductor
G = with protective conductor
X = without protective conductor

Range of temperature
Flexing:
-15 °C to +70 °C
Fixed installation:
-40 °C to +70 °C

ÖLFLEX® CLASSIC 135 CH 0,6/1kV

New

Halogen-free, highly flame-retardant & screened control cable
Nominal voltage 0,6/1kV; UV-resistant

Part number	Number of cores and mm² per conductor	Outer diameter in mm approx.	Copper weight kg/km approx.	Weight kg/km approx.
	ÖLFLEX® CLASSIC 135 CH 0,6/1kV - coloured cores			
1123460	2 X 1	9,4	39.5	120
1123461	3 G 1	9,8	51.0	140
1123462	4 G 1	10,4	62.8	165
1123463	5 G 1	11,2	76.0	191
	ÖLFLEX® CLASSIC 135 CH 0,6/1kV - numbered cores			
1123464	7 G 1	11,9	97.2	231
1123465	12 G 1	15.0	169.1	360
1123466	18 G 1	17,3	238.2	494
1123467	25 G 1	19,8	315.5	643
	ÖLFLEX® CLASSIC 135 CH 0,6/1kV - coloured cores			
1123468	2 X 1.5	10,4	53.2	149
1123469	3 G 1.5	10,9	69.5	177
1123470	4 G 1.5	11,6	86.5	209
1123471	5 G 1.5	12,5	104.3	243
	ÖLFLEX® CLASSIC 135 H 0,6/1kV - numbered cores			
1123472	7 G 1.5	13,4	136.5	300
1123473	12 G 1.5	17,3	238.3	486
1123474	18 G 1.5	20,2	355.4	691
1123475	25 G 1.5	23,1	475.1	914
	ÖLFLEX® CLASSIC 135 CH 0,6/1kV - coloured cores			
1123476	2 X 2.5	11,6	79.4	197
1123477	3 G 2.5	21,1	106.1	243
1123478	4 G 2.5	13.0	134.3	293
1123479	5 G 2.5	14,1	158.3	342
	ÖLFLEX® CLASSIC 135 CH 0,6/1kV - numbered cores			
1123480	7 G 2.5	15,4	225.0	462
1123481	12 G 2.5	20,1	383.6	718
1123482	18 G 2.5	23,4	548.9	1,011
1123483	25 G 2.5	27,4	761.7	1,370
	ÖLFLEX® CLASSIC 135 CH 0,6/1kV - coloured cores			
1123484	3 G 4	13,4	167.7	327
1123485	4 G 4	14,7	211.9	399
1123486	5 G 4	15,9	250.3	471
1123487	3 G 6	14,9	232.1	414
1123488	4 G 6	16,1	298.5	519
1123489	5 G 6	17,8	356.1	607
1123490	4 G 10	20,1	490.6	837
1123491	5 G 10	21,9	586.6	995
1123492	4 G 16	22,5	735.1	1,157
1123493	5 G 16	25.0	888.7	1,407
1123494	4 G 25	27,8	960.0	1,515

G = with Protective Conductor GNYE; X = without Protective Conductor
Copper price basis: EUR 150 / 100 kg
Standard lengths: (50; 100; 500; 1000) m
Packaging size: Coil < 30 kg, above automatically drum
Please specify the desired make-up (e.g. 1 x 500 m drum or 5 x 100 m coils)

New

ÖLFLEX® CONTROL TM CY

UL MTW listed, double screened cable acc. to NPFA 79
UL TC-ER type for exposed run

Information:
ÖLFLEX® CONTROL TMCY will gradually replace **ÖLFLEX® 191 CY**

Application
- USA NFPA 79 Edition 2007 conform MTW listed Machine Cable for North America.
- TC (Tray Cable) Listing for fixed installation also allows wiring in between machines on cable trays in accordance to NEC
- TC-ER (Exposed Run) approval for open / exposed run between cable tray and utilization equipment or devices on and in machines in industrial establishments in acc. to NEC 336.10(7)
- c(UL) CIC; TC listing & CSA AWM I/II A/B approvals allows similar fields of applications in Canada
- AWG conductors adapted to metric sizes allows an CE-conform usage in Europe
- Class 1, Div. 2 per NEC Art. 336, 392, 501
- NOM listed (Normas Oficiales Mexicanas)

Area of use:
- Plant engineering and construction
- Machine tools
- Industrial plants
- Automotive systems

Advantage
- Oil resistant (OIL RES I) and wet rating - usage on / in metal processing machine tools
- Simple and cost-saving installation due to exposed run approval
- As a result of the short lay length stranding, the precisely extruded outer sheath and the world-wide approvals, this type is a superior alternative to stationary tray cables
- Its flexible design allows a quick and easy installation, small bending radii and protecs against conductor -breakdowns may occurred by mechanical shocks / vibrations

Worth knowing
Accessories
- SKINTOP® and SKINDICHT® cable glands
- SILVYN® Cable Conduit Systems
- FLEXIMARK® Cable Marking
- Cable processing products see “Cable Accessories”

Comparable products:
- ÖLFLEX® TRAY II CY For outdoor use and direct burial
- UNITRONIC® 300 CY PLTC listed data cable

Technical notes:
- Flame-retardant acc. to: UL1581, Section 1160 (surpasses IEC 60332-1-2) CSA FT4
- Oil resistant OIL RES I

Cable Make-up
- Finely stranded bare copper wires in metric adapte AWG sizes
- Specially blended PVC insulation with Nylon jacket
- Black cores with white numbers
- Cores twisted in short lay lengths
- Aluminium laminated plastic foil tape
- Tinned copper screen braiding
- Special outer sheath PVC-based; oil-resistant; grey

Technical Data

Core identification code
Black cores with white numbers plus green/yellow protective conductor

Approvals
UL Type MTW
UL File No. E155920
UL Type TC-ER
UL File No.E171371
c(UL) Type TC and CIC FT4
UL/CSA AWM I/II A/B FT4
NOM (Normas Oficiales Mexicanas)

Specific insulation resistance
> 20 GOhm x cm

Conductor stranding
Fine wire strands

Minimum bending radius
Fixed installation:
6 x cable diameter
occasionally flexing:
20 x outer diameter

Rated voltage
UL/CSA: 600 V (TC, MTW, CIC)
UL/CSA: 1000 V (AWM)
HAR U_0/U: 300/500 V

Protective conductor
G = with protective conductor GN/YE
X = without protective conductor

Range of temperature
occasionally flexing:
-5°C to + 90°C
AWM: +105°C
Fixed installation:
-40°C to +90°C
AWM: +105°C

ÖLFLEX® CONTROL TM CY

New

UL MTW listed, double screened cable acc. to NPFA 79
UL TC-ER type for exposed run

Part number	Number of cores and mm² per conductor	AWG	Outer diameter in mm approx.	Copper weight kg/km approx.	Weight kg/km approx.
	ÖLFLEX® CONTROL TM CY				
281803CY	3 G 1	18	8.1	62.0	119
281804CY	4 G 1	18	8.6	74.0	137
281805CY	5 G 1	18	9.3	88.0	149
281807CY	7 G 1	18	10.0	112.0	193
281812CY	12 G 1	18	12.8	185.0	330
281818CY	18 G 1	18	15.5	268.0	438
281825CY	25 G 1	18	17.5	354.0	574
281602CY	2 X 1.5	16	8.3	65.0	115
281603CY	3 G 1.5	16	8.8	82.0	144
281604CY	4 G 1.5	16	9.4	100.0	173
281605CY	5 G 1.5	16	10.2	119.0	189
281607CY	7 G 1.5	16	11.1	154.0	246
281612CY	12 G 1.5	16	15.0	268.0	426
281618CY	18 G 1.5	16	17.2	373.0	552
281625CY	25 G 1.5	16	19.4	530.0	750
281403CY	3 G 2.5	14	9.7	118.0	180
281404CY	4 G 2.5	14	10.4	147.0	223
281405CY	5 G 2.5	14	11.5	176.0	268
281407CY	7 G 2.5	14	12.4	253.0	327
281204CY	4 G 4	12	12.3	206.0	315
281205CY	5 G 4	12	14.2	253.8	388
281207CY	7 G 4	12	15.3	326.4	499
281004CY	4 G 6	10	15.3	361.0	552
281005CY	5 G 6	10	16.7	400.9	613
280804CY	4 G 10	8	18.5	560.5	857
280604CY	4 G 16	6	22.9	790.0	1,208

G = with Protective Conductor GNYE; X = without Protective Conductor
Copper price basis: EUR 150 / 100 kg
Standard lengths: (76; 152; 305; 610) m
Packaging size: Coil < 30 kg, above automatically drum
Please specify the desired make-up (e.g. 1 x 610 m drum or 8 x 76 m coils)

Source: at the OPTIMA GROUP pharma GmbH / Germany
our ÖLFLEX® CONTROL TM CY cables are used in filling and packaging production lines for medico-pharmaceutical products

New

SERVO Cables in acc. to SEW® Standard

Combined control and supply line for servo motors with UL AWM approval

Application
- Designed especially to connect SEW® servo motors.
- Required wherever electrical interference may distore signal transmissions, e.g. in electric motors operated by frequency converters.
- For fixed installation or occasionally moved use.
- Increased Oil resistance and wet rating allows a direct usage inside processing cabins of metal processing machine tools
- Machine tool manufacturing
- Paper industry
- Packaging industry

Advantage
- Lapp Servo Cables according SEW® Standard are ideal for export oriented machine tool, equipment and appliance manufacturers and offers outstanding features: 600 V rating for power and control cores, UL AWM approval, CE and DESINA® conformity, oil resistance and flame retardant. The use of only one cable saves costs in documentation, procurement, stocking and spare parts supply. The cable is free of substances harmful to lacquer.

Worth knowing
- For further information about DESINA® and other DESINA® compliant LAPP products, see selection table A9 or request directly from LAPP KABEL. For use in power chains we recommend our FD versions, see selection table A2 in appendix.
- **Amendment:** CablesType **AWM** (Appliance Wiring Material) shall be permitted for industrial machinery (US) when part of a **listed assembly**. NFPA 79 Edition 2007 §12.2.7.3

Cable Make-up
- Fine wire strands of plain copper wires, Class 5
- Core insulation with TPE base
- One core green-yellow as earthing conductor.
- Control core-triplet screende with laminated aluminium foil and tinned copper wires
- Cores twisted together
- Special PVC based outer sheath
- Oil resistant, flame retardant and self extinguishing in accordance with IEC 60332.1-2 and CSA FT1
- orange (RAL 2003)

Technical Data

Core identification code
Power: black cores with white letters U, V, and 1 core gnye
Control cores: black cores with white numbers 1, 2 and 3

Approvals
UL-AWM-Style 2587

Based on
VDE 0250, 0281

Specific insulation resistance
> 20 GOhm x cm

Conductor stranding
Fine wire in acc. to VDE 0295
Cl.5/IEC 60228 Cl.5

Minimum bending radius
for flexible applications:
15 x cable diameter
Fixed installation:
6 x cable diameter

Rated voltage
Power cores: IEC 750V, UL 600V
Control core: 1mm² and 1,5mm:
IEC 350V, UL 600V

Test voltage
2000 V

Protective conductor
G = with protective conductor GN/YE

Range of temperature
Flexing: -10 °C to +80 °C
fixed installation: -40 to +80 °C

Part number	Number of cores and mm²/AWG per conductor	Outer diameter in mm approx.	Copper weight kg/km approx.	Weight kg/km approx.
	Servo motor cable for fixed installation			
0038060	4G1,5/AWG16+(3x1/AWG18)	12.0	151.0	300
0038061	4G2,5/AWG14+(3x1/AWG18)	13.4	212.9	370
0038062	4G4/AWG12+(3x1/AWG18)	15.0	281.8	476
0038063	4G6/AWG10+(3x1,5/AWG16)	17.0	392.8	625
0038064	4G10/AWG8+(3x1,5/AWG16)	20.0	625.1	1,024

G = with Protective Conductor GNYE; X = without Protective Conductor
Copper price basis: EUR 150 / 100 kg
Standard lengths: (50; 100; 500; 1000) m
Packaging size: Coil < 30 kg, above automatically drum
Please specify the desired make-up (e.g. 1 x 500 m drum or 5 x 100 m coils)
SEW is an registered trademark of SEW Eurodrive GmbH & Co KG, Ernst-Blickle Str. 42, D-76646 Bruchsal

ÖLFLEX® SOLAR XLv

New

Heavy-duty solar cables with reinforced outer sheath - applicable for direct burial in earth

Application
ÖLFLEX® SOLAR XLv was designed considering the same photovoltaic application demands than the already existing ÖLFLEX® SOLAR product line. Due to a reinforced outer sheath the cable is largely resistant against mechanical influences and could be installed considering the common installation guidelines directly in earth (e.g. for use in solar field plants).

Special feature
- Halogen-free and flame retardant
- Cross-linked compounds- prevent deformation of the insulation materials in case of short-circuit
- Excellent weather-, abrasion and UV resistance
- Extra robust outer sheath design

Note
- For the connection of the solar panels we recommend our EPIC® SOLAR connectors resp. SKINTOP® ST-M cable glands
- ÖLFLEX® STATIC SC black - especially for cost-effective fixed installed indoor applications for instance as connection to the inverter

Coded version:
- On request we also offer versions which are additionally imprinted with a stripe as distinctive feature

Cable Make-up
- Conductor: tinned copper strands, fine wired, class 5
- Core insulation: special polyolefin, cross-linked, black
- Outer sheath: modified copolymer, cross-linked
- Colour: black

Advantage
- UV and ozone resistant
- Temperature resistant
- Halogen-free
- Flame retardant
- No spreading of fire and toxic gases in the event of fire
- High mechanical abrasion resistant during installation
- Suitable for direct burial
- Exact control of installed quantity by meter marking

Technical Data

Core identification code
black

Conductor stranding
fine wire in acc. to VDE 0295
Class 5/IEC 60228 Cl. 5

Minimum bending radius
fixed installation:
4 x cable diameter
for flexible applications:
15 x cable diameter

Rated voltage
U_0/U
AC 600/1000 V
DC 900/1500 V

Test voltage
4000 V

Range of temperature
fixed installation:
-40°C up to +120°C
short-circuit temperature:
+250°C

Part number	Conductor cross-section in mm²	Outer diameter in mm approx.	Copper weight kg/km	Weight kg/km approx.
	ÖLFLEX® SOLAR XLv black			
0027080	4.0	8.0	38.4	97.0
0027081	6.0	9.1	57.6	135.0
0027082	10.0	10.5	96.0	206.0
0027083	16.0	11.9	153.6	315.0
0027084	25.0	13.2	240.0	460.0
0027085	35.0	14.5	336.0	570.0
0027086	50.0	17.7	480.0	763.0
0027087	70.0	19.7	672.0	987.0
0027088	95.0	21.8	912.0	1,276.0

Copper price basis: EUR 150 / 100 kg
Standard lengths: (500; 1000) m
Packaging size: Drum

Due to specific compound characteristics of the outer sheath the printing could be partly unreadable.

New

ÖLFLEX® PETRO DRILLING

Single core cables for power supply of Oil & Gas applications in On- and Offshore areas
0,6/1 kV - Mineral oil and Mud tested in accordance with IEC 61892-4, Annex D

Application
ÖLFLEX® PETRO DRILLING single core cables are mainly used in on- and offshore Oil & Gas applications for power supply as for instance nitrogen and mud pumping stations, drilling derricks or also cable winches on marine vessels and stationary resp. mobile oil rigs. The highly flexible cable design enables small bending radii for ideal space-saving installations with limited space requirements in dry and damp interiors as well as for outdoor applications. Suitable for rated voltage 0,6/1 kV (IEC) resp. working voltage 600 V (UL/CSA) resp. 2000 V (acc. DLO requirements).

Special feature
- The cable sheath material complies with the mineral oil / mud requirements for drilling fluids as per IEC 61892-4, Annex D
- Halogen free - no formation of toxic fire gases
- Fire-behaviour according separate flammability test report
- High resistance against cooling lubricants, mineral- and synthetic oils
- Good mechanical abrasion resistance

Note
- No stock item

Cable Make-up
- Superfine wired strands of tinned copper
- Textile fleece wrapping
- Polyolefin based core insulation
- Outer sheath of TPE based compound
- Colour silver grey (RAL 7001)

Technical Data

Conductor stranding
superfine wired
(single wire diameter 0,25mm)

Minimum bending radius
static: > 3 x cable diameter

Rated voltage
U_0/U 600/1000 V

Test voltage
4000 V

Range of temperature
fixed installed
-40° C up to +90° C

Part number	Number of cores and MCM per conductor	Conductor cross-section in mm²	Outer diameter in mm approx.	Copper weight kg/km approx.	Weight kg/km approx.
3035876	1 X 535 MCM	270	32.5	2,562.0	3,200
3035877	1 X 646 MCM	330	35.6	3,172.0	3,900
3035878	1 X 777 MCM	395	38.1	3,782.0	4,500

Copper price basis: EUR 150 / 100 kg

Packaging size: Drum

Other construction designs on request

Power Aluminium Cable NAYY-J

0,6/1,0 kV cable alternative to copper
Burial in the ground, use outdoor

Application
As a fixed installation power and control cable for the following applications:
- Indoors
- Outdoors
- Underground
- In water

Conductor configuration
In accordance with VDE 0295 / IEC 60228
- re = round conductor, single wire
- se = sectorial conductor, single wire

Note
- Maximum tensile load for aluminium conductors is 30 N/mm²
- For current load capacity, HD 603 S.1 applies
- Tube Cable lugs and other connectors made of aluminium or bimetall AlCu are available on request

Cable Make-up
- Single wire conductor made of aluminium
- PVC core insulation
- Cores twisted concentrically, common core sheathing
- Outer sheath of PVC, black, flame-retardant

Accessories
V 1311 see page 892 main catalogue

Technical Data

Core identification code
In acc. with VDE 0293-308
see appendix T9

Approvals
VDE 0276 part 603

Minimum bending radius
12 x cable diameter

Rated voltage
U_0/U: 0,6/1,0 kV

Test voltage
4 kV

Range of temperature
At installation:
+5°C to +50°C
Fixed installation:
-30°C to +70°C

Part number	Number of cores and mm² per conductor	Outer diameter in mm approx.	Aluminium weight kg/km	Weight kg/km approx.
	NAYY-J			
1552010	4 x 35,0 re	28.2	406.0	1,170.0
1552011	4 x 50,0 se	29.8	580.0	1,305.0
1552012	4 x 70,0 se	34.2	812.0	1,730.0
1552013	4 x 95,0 se	38.6	1,102.0	2,205.0
1552014	4 x 120,0 se	41.9	1,392.0	2,655.0
1552015	4 x 150,0 se	45.6	1,740.0	3,150.0
1552016	4 x 185,0 se	50.8	2,146.0	3,925.0
1552017	4 x 240,0 se	59.6	2,784.0	4,880.0

Aluminium price basis: Excluding Aluminium

Comparison Power Rating for NYY and NAYY according to VDE 0276 part 603

3 current carrying conductors underground Current rating in A			
Cross section mm²	NYY		NAYY
35	159	→	123
50	188		144
70	232	→	179
95	280		215
120	318		245
150	359	→	275
185	406		313
240	473		364

Source: VDE 0276 part 603, part 3G, table 14

3 current carrying conductors in air Current rating in A			
Cross section mm²	NYY		NAYY
35	129	→	100
50	157		119
70	199	→	152
95	246		186
120	285		216
150	326	→	246
185	374		285
240	445		338

Source: VDE 0276 part 603, part 3G, table 15

ETHERLINE® PROFIBUS DP Ethernet-Gateways

Industrial Ethernet - PROFIBUS DP Ethernet-Gateways

General description
Gateway for connecting Ethernet-based architecture to PROFIBUS fieldbus systems.
Comfortable configuration and administration via graphical user interface over Web Browser (HTTP protocol) or via serial port (RS232).
Access up to three separate bus segment as a master or slave.
Cost reduction attributable to fast system intergration and commissioning via user-friendly web interface.

PROFIBUS
- PROFIBUS DP can be configured as master or slave
- Supported protocols: DP-V1 Master, FMS, FDL, MPI
- Transfer rates: 9.6; 19.2; 45.45; 93.75; 187.5; 500; 1500; 3000; 6000; 12000 kBit/s
- Connector: 9-pin female D-sub

Ethernet
- 10/100 Mbit/s for Industrial Ethernet
- Autosensing
- Connector: RJ45

COM Port
- Alternative configuration access (RS232)
- Connector: 9-pin male D-sub

Mechanical resistance
- IEC 60068-2-6 Vibration
- IEC 60068-2-27 Shock

System requirements
- PC with Windows Vista / XP / 2000 / NT, web browser for configuration

Important information
PROFIBUS OPC Server gives you quick and convenient access to PROFIBUS DP and PA devices from any manufacturer. The configurator helps you put DP-V0 and DP-V1 networks into operation.

Download: http://www.softing.com/home/en/industrial-automation/products/opc/server/profibus.php?navanchor=3010167

Technical Data

Dimensions W x H x D in mm
A-GW-P1E: 47x131x111
A-GW-P3E: 110x131x111

Weight g
A-GW-P1E: 400 g
A-GW-P3E: 1250 g

LED
Power, Connection, Data, Faults

Air humidity
rel.: max. 90% at +25°C (non-condensing)

Installation
35mm DIN top-hat rail (EN50022)

Rated voltage
18 up to 30V DC / 1A

Degree of protection
IP 20 (EN 60529)

Range of temperature
Operating temperature: 0°C to +55°C
Storage temperature: -20°C to +70°C

Part number	Part designation / size	Port type	PU
	PROFIBUS 1 channel		
21700002	ETHERLINE® A-GW-P1E	1 x 10/100BaseTX, 1 x PROFIBUS	1
	PROFIBUS 3 channel		
	ETHERLINE® A-GW-P3E	1 x 10/100BaseTX, 3 x PROFIBUS	1

Connector kits housing type EPIC® H-A 3

- cable connector hood with suitable insert or receptacle housing with suitable insert
- inserts EPIC® H-A 3 or EPIC® H-A 4 with screw termination
- housings from thermoplastics or zinc die-casting

The complete range of EPIC® kits are shown in the EPIC® Industrial connectors catalogue and in the online catalogue at http://www.lappgroup.com There you can find the complete range of all component parts as well as the Technical Specifications.

Part number	Part	Parts included	Contacts	PU pieces
75009602	EPIC® KIT H-A 3 SS MTGV M20	Male insert + hood (straight entry), zinc die-casting, M20	3 + PE	1
75009604	EPIC® KIT H-A 3 SS MTS M20	Male insert + hood (side entry), zinc die-casting, M20	3 + PE	1
75009606	EPIC® KIT H-A 3 BS MAG	Female insert + panel mount base straight entry, zinc die-casting	3 + PE	1
75009608	EPIC® KIT H-A 3 BS MAGS	Female insert + panel mount base side entry, zinc die-casting	3 + PE	1
75009610	EPIC® KIT H-A 3 BS MAGSV M20	Female insert + surface mount base straight entry, zinc die-casting, M20	3 + PE	1
75009612	EPIC® KIT H-A 3 BS MTGVB M20	Female insert + cable coupler straight entry, zinc die-casting, M20	3 + PE	1

Connector kits housing type EPIC® H-A and EPIC® H-B

- cable connector hood with suitable insert or receptacle housing with suitable insert
- inserts from 6pol. to 108pol.
- screw- or crimp termination

The complete range of EPIC® kits are shown in the EPIC® Industrial connectors catalogue and in the online catalogue at http://www.lappgroup.com There you can find the complete range of all component parts as well as the Technical Specifications.

Part number	Part	Parts included	Contacts	PU pieces
75009640	EPIC® KIT H-BE 10 SS TG M25	Male insert + hood (straight entry), bolts for double lever, M25	10 + PE	1
75009641	EPIC® KIT H-BE 10 SS TS M25	Male insert + hood (side entry), bolts for double lever, M25	10 + PE	1
75009642	EPIC® KIT H-BE 10 BS AG	Female insert + panel mount base, double lever	10 + PE	1
75009643	EPIC® KIT H-BE 10 BS SGR M25	Female insert + surface mount base, double lever, M25	10 + PE	1
75009644	EPIC® KIT H-BE 10 BS TBF M25	Female insert + cable coupler, double lever, M25	10 + PE	1
75009685	EPIC® KIT H-DD 108 SCM TS M32	Male insert + hood (straight entry), bolts for double lever, M25, crimping contacts 0,14-0,37mm²	108 + PE	1
75009686	EPIC® KIT H-DD 108 SCM TS M32	Male insert + hood (side entry), bolts for double lever, M25, crimping contacts 0,14-0,37mm²	108 + PE	1
75009687	EPIC® KIT H-DD 108 BCM AG	Female insert + panel mount base, double lever, crimping contacts 0,14-0,37mm²	108 + PE	1
75009688	EPIC® KIT H-DD 108 BCM SGRL M25	Female insert + surface mount base, double lever, M25, crimping contacts 0,14-0,37mm²	108 + PE	1
75009689	EPIC® KIT H-DD 108 BCM TBF M32	Female insert + cable coupler, double lever, M25, crimping contacts 0,14-0,37mm²	108 + PE	1

Connector kits EPIC® CIRCON

- cable connector hood with suitable insert or receptacle housing with suitable insert
- Kits with LS1 Power connectors or M23 signal connectors
- contacts in crimp (LS1) or solder termination (M23)

The complete range of EPIC® kits are shown in the EPIC® Industrial connectors catalogue and in the online catalogue at http://www.lappgroup.com There you can find the complete range of all component parts as well as the Technical Specifications.

Part number	Part	Parts included	Contacts	PU pieces
75009690	EPIC® KIT LS1 D6 6-POL FEMALE	Cable connector incl. 2mm female contacts, for Servo-cables	5 + PE	1
75009691	EPIC® KIT LS1 A1 6-POL MALE	Panel mount base incl. 2mm male contacts	5 + PE	1
75009692	EPIC® KIT LS1 A3 6-POL MALE	Swivelling angled panel mount base , incl. 2mm male contacts	5 + PE	1
75009693	EPIC® KIT LS1 F6 6-POL MALE	Cable coupler incl. 2mm male contacts, for Servo-cables	5 + PE	1
75009702	EPIC® KIT M23 D6 12-POL FEMALE	M23 Cable connector D6, coding N, incl. female insert	12	1
75009703	EPIC® KIT M23 A1 12-POL MALE	M23 Panel mount base A1, coding N, incl. male insert	12	1
75009704	EPIC® KIT M23 A3 12-POL MALE	M23 Swivelling angled panel mount base A3, coding N, incl. male insert	12	1
75009705	EPIC® KIT M23 F6 12-POL MALE	M23 Cable coupler F6, coding N, incl. male insert	12	1

New

EPIC® Rectangular connectors

Optimization in details of housings and inserts

Bolts with new coating for housings with double lever locking

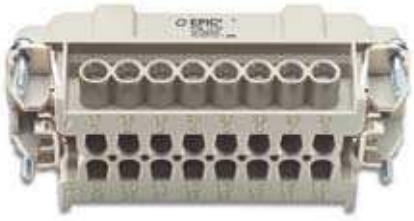
- for housings type H-A 32, H-A 48, and H-B 10 ... H-B 24
- proper sliding characteristic
- improved corrosion protection
- new, anthracite coloured design of the bolts

These optimizations will flow continuously into the production. In some cases of delivery the parts can be mixed. **Part numbers keep unchanged.**

New bracket for the covers of H-B panel mount base and surface mount base housings

- The EPIC® heavy duty metal covers made from solid aluminium alloy will be shipped with a new type of hinge from now on.
- Degree of protection with closed cover: IP 40
- Degree of protection with latched cover: IP 65

These optimizations will continuously flow into the ongoing production. In some cases of delivery the parts can be mixed **Part numbers keep unchanged.**



Optimization for HBE inserts (screw termination)

- New insulation body with a lot of useful details
- optimized transportation locking of the connecting screws
- a bigger slot for the screw – also fitting for US-screwdrivers
- multi-screw head with cross slot PH1 and slot 3,5 x 0,6
- Numbering of contacts are moulded into the insulation body, higher numbering is included
- contacts with threads on both sides of the insert
- connection-screw near PIN 1

These optimizations will flow continuously into the production. In some cases of delivery the parts can be mixed. **Part numbers keep unchanged, technical data in EPIC® catalogue. Attention safety guidlines!**

EPIC® MC – the modulare system

Now with 75 Ohm Coax contacts for video applications

In the wide range of event technology there are requirements in cables and connectors for transmission of video signals in combination with data and power cables.

- Perfect solution for UNITRONIC® Combi cable combined with suitable EPIC® MC-Modules
- Coax contacts, Impedance 50 Ohm and 75 Ohm, suitable for various types of video cables
- Coax contacts with solder termination

The complete range of EPIC® modules are shown in the EPIC® Industrial connectors catalogue and in the online catalogue at http://www.lappgroup.com There you can find the complete range of all component parts as well as the Technical Specifications.

Part number	Part	Version	Surface	PU pieces
44429017	EPIC® MC BLEM 50Ohm RG58CU	Coax female contact	Au	10
44429018	EPIC® MC SLEM 50Ohm RG58CU	Coax male contact	Au	10
44429019	EPIC® MC BLEM 75Ohm RG180BU	Coax female contact	Au	10
44429020	EPIC® MC SLEM 75Ohm RG180BU	Coax male contact	Au	10
44429021	EPIC® MC BLEM 75Ohm RG187AU	Coax female contact	Au	10
44429022	EPIC® MC SLEM 75Ohm RG187AU	Coax male contact	Au	10

The approved EPIC® MC Coax-Modules are designed for taking up to 3 coax contacts.

- The EPIC® Universal Bus Modules for Data Communication are designed for a data rate up to 1,5 Mb/s.
- Connection of the shielded cables with screw termination
- These modules are designed to go into the EPIC® MCR Frames There are frames with a capacity up to 7 slots (=modules) available

The complete range of EPIC® modules are shown in the EPIC® Industrial connectors catalogue and in the online catalogue at http://www.lappgroup.com There you can find the complete range of all component parts as well as the Technical Specifications.

Part number	Part	Version	Contacts	PU pieces
10399200	MCS 3 Coax	Coax module 3pol. for male contacts	3	10
10399300	MCB 3 Coax	Coax module 3pol. for female contacts	3	10
10390600	MCS 4 SS	Universal-Bus male module 4pol. + shield	4 + shield	5
10390700	MCS 4 BS	Universal-Bus female module 4pol. + shield	4 + shield	5

New

D-Sub contacts-on-reel for EPIC® connectors

A fast and proper solution for Servo-harnessings

- New 1mm D-Sub contacts for fast and economic harnessing of EPIC® CIRCON M23 connectors
- contacts-on-reel, with 500 contacts a reel
- two quality levels of contacts: level 2 and 3 (50/200 mating cycles)
- two cross-sections: 0,08 – 0,22 mm² and 0,22 – 0,56 mm²
- proven termination with the specially designed crimping tool for D-Sub contacts-on-reel

The complete range of EPIC® M23 contacts are shown in the EPIC® Industrial connectors catalogue and in the online catalogue at http://www.lappgroup.com There you can find the complete range of all are all component parts as well as the Technical Specifications.

Part number	Part	Version	Contactse	PU pieces
44429007	EPIC® D-SUB BCBG AU G2 0,08-0,22 (500)	1mm female crimp	Reel with 500 contacts	1
44429008	EPIC® D-SUB BCBG AU G2 0,22-0,56 (500)	1mm female crimp	Reel with 500 contacts	1
44429009	EPIC® D-SUB BCBG AU G3 0,08-0,22 (500)	1mm female crimp	Reel with 500 contacts	1
44429010	EPIC® D-SUB BCBG AU G3 0,22-0,56 (500)	1mm female crimp	Reel with 500 contacts	1
44429011	EPIC® D-SUB SCBG AU G2 0,08-0,22 (500)	1mm male crimp	Reel with 500 contacts	1
44429012	EPIC® D-SUB SCBG AU G2 0,22-0,56 (500)	1mm male crimp	Reel with 500 contacts	1
44429013	EPIC® D-SUB SCBG AU G3 0,08-0,22 (500)	1mm male crimp	Reel with 500 contacts	1
44429014	EPIC® D-SUB SCBG AU G3 0,22-0,56 (500)	1mm male crimp	Reel with 500 contacts	1
11158400	M-D CRIMPING TOOL.KPL 0.08-0.56MM²	Crimping tool	for Reel with 500 contacts	1

- EPIC® CIRCON M23 inserts, suitable for D-Sub contacts-on-reel
- two different numbers of contacts: 12poles and 17poles
- Different inserts for male or female D-Sub-contacts
- different designs and contact arrangements: right hand rotation (= clockwise = E-Part) or left hand rotation (= anticlockwise = P-Part)
- D-Sub-contacts also fit into EPIC® MC Modules 20poles for rectangular connectors

The complete range of EPIC® M23 inserts are shown in the EPIC® Industrial connectors catalogue and in the online catalogue at http://www.lappgroup.com There you can find the complete range of all are all component parts as well as the Technical Specifications.

Part number	Part	Version	Contacts	PU pieces
44420120	EPIC® M23 12E S D-Sub (5) INSERT	Insert 12pol. E-Part	for male contact	5
44420122	EPIC® M23 12E B D-Sub (5) INSERT	Insert 12pol. E-Part	for female contact	5
44420124	EPIC® M23 12P S D-Sub (5) INSERT	Insert 12pol. P-Part	for male contact	5
44420126	EPIC® M23 12P B D-Sub (5) INSERT	Insert 12pol. P-Part	for female contact	5
44420128	EPIC® M23 17E S D-Sub (5) INSERT	Insert 17pol. E-Part	for male contact	5
44420130	EPIC® M23 17E B D-Sub (5) INSERT	Insert 17pol. E-Part	for female contact	5
44420132	EPIC® M23 17P S D-Sub (5) INSERT	Insert 17pol. P-Part	for male contact	5
44420134	EPIC® M23 17P B D-Sub (5) INSERT	Insert 17pol. P-Part	for female contact	5

Contacts-on-reel for EPIC® CIRCON LS1 connectors

A fast and proper solution for Servo-harnessings

- 2 mm stamped contacts-on-reel for fast and economic harnessing of EPIC® CIRCON LS1 power connectors
- contacts-on-reel, with 3000 contacts a reel
- Female contacts, cross section: 1,0 – 2,5 mm²
- suitale for standard full-automatical crimping machines for contacts-on-reel
- contacts are used for EPIC® CIRCON LS1 cable connector D6 and panel mount base A6

The complete range of EPIC® CIRCON LS1 connectors are shown in the EPIC® Industrial connectors catalogue and in the online catalogue at http://www.lappgroup.com There you can find the complete range of all are all component parts as well as the Technical Specifications.

Part number	Part	Version	Contacts	PU pieces
44429001	EPIC® CIRCON BCBG 2MM 1.0-2.5 (3000) RE	2mm female crimp	Reel with 3000 contacts	1

- Additionally to machined crimping contacts, which are used in all EPIC® CIRCON LS1 connectors, some connector types can be assembled with these new contacts-on-reel.
- These new stamped female contacts-on-reels are designed for EPIC® CIRCON LS1 cable connectors type D6, D6 short and the panel mount base type A6.
- LS1 connectors are available in two different packaging units: PU 5 = including the suitable machined crimp contacts PU 20 = without contacts – contacts can be ordered separately, for example contacts-on-reel, Part number 44429001.

The complete range of EPIC® CIRCON LS1 connectors are shown in the EPIC® Industrial connectors catalogue and in the online catalogue at http://www.lappgroup.com There you can find the complete range of all are all component parts as well as the Technical Specifications.

Part number	Part	Version	Contacts	PU pieces
73000006	EPIC® LS1 D6 5+PE 8,5-11 (20)	Cable connector D6	5 + PE	20
73000007	EPIC® LS1 D6 5+PE 10,5-15,5 (20)	Cable connector D6	5 + PE	20
76123510	EPIC® LS1 D6 5+PE 7,5-15,5 (20)	Cable connector D6	5 + PE	20
44420090	EPIC® LS1 D6 5+PE 14-17 (20)	Cable connector D6	5 + PE	20
73000030	EPIC® LS1 D6 5+PE SHORT 8,5-11 (20)	Cable connector D6 short	5 + PE	20
73000031	EPIC® LS1 D6 5+PE SHORT 10,5-15,5 (20)	Cable connector D6 short	5 + PE	20
76123610	EPIC® LS1 D6 5+PE SHORT 7,5-15,5 (20)	Cable connector D6 short	5 + PE	20
76083510	LS1 A6 5+PE (20) PANEL MOUNT BASE	Panel mount base A6	5 + PE	20

New

SKINTOP® CLICK / CLICK-R

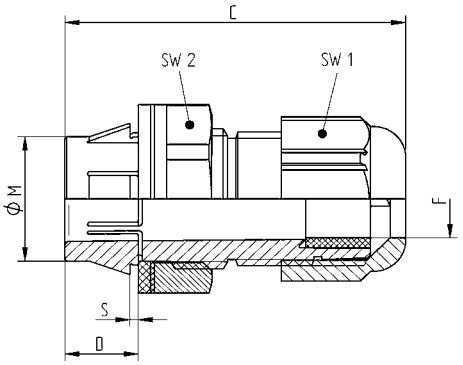
Cable insertion system for fastest assembly

SKINTOP® CLICK

Application
The most innovative cable insertion system on the market for very fast, highly flexible assembly with all the proven properties of our SKINTOP® cable glands in use world-wide. Simply click in - turn to left - turn to right - finished. Result: fixed, centred, strain reliefed and maximum protection class in seconds.
Developed especially for:
- Manufacturing of control cabinets
- Measurement, control and electrical applications
- Automation technology
- Plant, apparatus construction
- Control system construction
- Solar applications

Advantage
- Up to 70% time saving due to innovative CLICK system
- Simple, free assembly in any position
- Fewer parts, counter nut no longer needed
- Captive
- No thread required
- protected against vibration
- Maximum quality
- Strain relief in acc. with EN 50262
- IP 68, hermetically sealed

Note
- Disassembly tool contained in the delivery scope



SKINTOP® CLICK-R

Application
The innovative SKINTOP® CLICK-R with reduction sealing insert for sealing smaller cable diameters.

Advantage
- Reliable sealing of small cable cross-sections
- For additional advantages, see SKINTOP® CLICK

Note
- Disassembly tool contained in the delivery scope

Technical Data

Approvals
VDE approval for sizes M12 and M32 in preperation

Colour delivered
RAL 7001 silver-grey
RAL 7035 light grey
RAL 9005 black / UV resistant

Material
Body: special polyamide
Seal: special elastomer

Degree of protection
IP 68 - 5 bar

Range of temperature
-20°C up to +100°C

SKINTOP® CLICK / CLICK-R

Cable insertion system for fastest assembly

Part number	Part designation / size	Clamping range ØF mm	M (hole mm)	Overall length C mm	Thread length D mm	SW1 / SW2 mm	S (wall thickness mm)	Pieces / PU
	SKINTOP® CLICK light grey							
53112692	CLICK 12	3 - 7	12,3 (-0,2)	40.0	8.0	15.0 / 18.0	1.0 - 4.0	50
53112686	CLICK 16	5 - 9	16,3 (-0,2)	42.0	8.0	19.0 / 22.0	1.0 - 4.0	50
53112687	CLICK 20	7 - 13	20,3 (-0,2)	45.5	8.0	25.0 / 27.0	1.0 - 4.0	25
53112688	CLICK 25	9 - 17	25,3 (-0,2)	48.5	8.0	30.0 / 34.0	1.0 - 4.0	25
53112694	CLICK 32	11 - 21	32,3 (-0,2)	55.0	8.0	36.0 / 40.0	1.0 - 4.0	25
	SKINTOP® CLICK silver-grey							
53112921	CLICK 12	3 - 7	12,3 (-0,2)	40.0	8.0	15.0 / 18.0	1.0 - 4.0	50
53112876	CLICK 16	5 - 9	16,3 (-0,2)	42.0	8.0	19.0 / 22.0	1.0 - 4.0	50
53112877	CLICK 20	7 - 13	20,3 (-0,2)	45.5	8.0	25.0 / 27.0	1.0 - 4.0	25
53112878	CLICK 25	9 - 17	25,3 (-0,2)	48.5	8.0	30.0 / 34.0	1.0 - 4.0	25
53112922	CLICK 32	11 - 21	32,3 (-0,2)	55.0	8.0	36.0 / 40.0	1.0 - 4.0	25
	SKINTOP® CLICK black							
53112923	CLICK 12	3 - 7	12,3 (-0,2)	40.0	8.0	15.0 / 18.0	1.0 - 4.0	50
53112882	CLICK 16	5 - 9	16,3 (-0,2)	42.0	8.0	19.0 / 22.0	1.0 - 4.0	50
53112883	CLICK 20	7 - 13	20,3 (-0,2)	45.5	8.0	25.0 / 27.0	1.0 - 4.0	25
53112884	CLICK 25	9 - 17	25,3 (-0,2)	48.5	8.0	30.0 / 34.0	1.0 - 4.0	25
53112924	CLICK 32	11 - 21	32,3 (-0,2)	55.0	8.0	36.0 / 40.0	1.0 - 4.0	25
	SKINTOP® CLICK-R light grey							
53112925	CLICK-R 12	1 - 5	12,3 (-0,2)	40.0	8.0	15.0 / 18.0	1.0 - 4.0	50
53112689	CLICK-R 16	4 - 7	16,3 (-0,2)	42.0	8.0	19.0 / 22.0	1.0 - 4.0	50
53112690	CLICK-R 20	5 - 10	20,3 (-0,2)	45.5	8.0	25.0 / 27.0	1.0 - 4.0	25
53112691	CLICK-R 25	6 - 13	25,3 (-0,2)	48.5	8.0	30.0 / 34.0	1.0 - 4.0	25
53112926	CLICK-R 32	7 - 15	32,3 (-0,2)	55.0	8.0	36.0 / 40.0	1.0 - 4.0	25
	SKINTOP® CLICK-R silver-grey							
53112927	CLICK-R 12	1 - 5	12,3 (-0,2)	40.0	8.0	15.0 / 18.0	1.0 - 4.0	50
53112879	CLICK-R 16	4 - 7	16,3 (-0,2)	42.0	8.0	19.0 / 22.0	1.0 - 4.0	50
53112880	CLICK-R 20	5 - 10	20,3 (-0,2)	45.5	8.0	25.0 / 27.0	1.0 - 4.0	25
53112881	CLICK-R 25	6 - 13	25,3 (-0,2)	48.5	8.0	30.0 / 34.0	1.0 - 4.0	25
53112928	CLICK-R 32	7 - 15	32,3 (-0,2)	55.0	8.0	36.0 / 40.0	1.0 - 4.0	25
	SKINTOP® CLICK-R black							
53112929	CLICK-R 12	1 - 5		40.0	8.0	15.0 / 18.0	1.0 - 4.0	50
53112885	CLICK-R 16	4 - 7	16,3 (-0,2)	42.0	8.0	19.0 / 22.0	1.0 - 4.0	50
53112886	CLICK-R 20	5 - 10	20,3 (-0,2)	45.5	8.0	25.0 / 27.0	1.0 - 4.0	25
53112887	CLICK-R 25	6 - 13	25,3 (-0,2)	48.5	8.0	30.0 / 34.0	1.0 - 4.0	25
53112931	CLICK-R 32	7 - 15	32,3 (-0,2)	55.0	8.0	36.0 / 40.0	1.0 - 4.0	25

New

SKINTOP® CLICK BS

Cable insertion system with bending protection spiral for additional reliability

SKINTOP® CLICK BS

Application
The innovative CLICK system now also available with additional bending protection for flexible cables. Cables for electrical appliances and machinery, which are moved under normal use, must be protected against excessive bending, as required in accordance with VDE 0730. Safety feature for flexible cables used in e. g.:

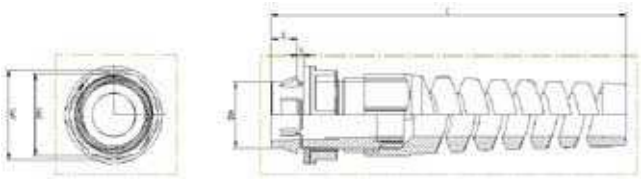
- Hand-held equipment
- Flexing machine parts
- Apparatus engineering
- Light and sound applications
- Robotics industry

Advantage

- Up to 70% time saving due to innovative CLICK system
- Simple, free assembly in any position
- Fewer parts, counter nut no longer needed
- Captive
- No thread required
- protected against vibration
- Maximum quality
- Strain relief in acc. with EN 50262
- IP 68, hermetically sealed
- Reliable bending protection for cable conservation and functional reliability

Note

- Disassembly tool contained in the delivery scope



Technical Data

Approvals
VDE approval for sizes M12 and M32 in preperation

Colour delivered
RAL 7001 silver-grey
RAL 7035 light grey
RAL 9005 black / UV resistant

Material
Body: special polyamide
Seal: special elastomer

Degree of protection
IP 68 - 5 bar

Range of temperature
-20°C up to +100°C

Part number	Part designation / size	Clamping range ØF mm	M (hole mm)	Overall length C mm	Thread length D mm	SW1 / SW2 mm	S (wall thickness mm)	Pieces / PU
	SKINTOP® CLICK BS light grey							
53112932	CLICK BS 12	3 - 7	12,3 (-0,2)	74.0	8.0	15.0 / 18.0	1.0 - 4.0	50
53112888	CLICK BS 16	5 - 9	16,3 (-0,2)	94.0	8.0	19.0 / 22.0	1.0 - 4.0	50
53112889	CLICK BS 20	7 - 13	20,3 (-0,2)	108.0	8.0	19.0 / 22.0	1.0 - 4.0	25
53112890	CLICK BS 25	9 - 17	25,3 (-0,2)	127.0	8.0	30.0 / 34.0	1.0 - 4.0	25
53112933	CLICK BS 32	11 - 21	32,3 (-0,2)	155.0	8.0	36.0 / 40.0	1.0 - 4.0	25
	SKINTOP® CLICK BS silver-grey							
53112934	CLICK BS 12	3 - 7		74.0	8.0	15.0 / 18.0	1.0 - 4.0	50
53112906	CLICK BS 16	5 - 9	16,3 (-0,2)	94.0	8.0	19.0 / 22.0	1.0 - 4.0	50
53112907	CLICK BS 20	7 - 13	20,3 (-0,2)	108.0	8.0	19.0 / 22.0	1.0 - 4.0	25
53112908	CLICK BS 25	9 - 17	25,3 (-0,2)	127.0	8.0	30.0 / 34.0	1.0 - 4.0	25
53112935	CLICK BS 32	11 - 21	32,3 (-0,2)	155.0	8.0	36.0 / 40.0	1.0 - 4.0	25
	SKINTOP® CLICK BS black							
53112936	CLICK BS 12	3 - 7		74.0	8.0	15.0 / 18.0	1.0 - 4.0	50
53112909	CLICK BS 16	5 - 9	16,3 (-0,2)	94.0	8.0	19.0 / 22.0	1.0 - 4.0	50
53112911	CLICK BS 20	7 - 13	20,3 (-0,2)	108.0	8.0	19.0 / 22.0	1.0 - 4.0	25
53112912	CLICK BS 25	9 - 17	25,3 (-0,2)	127.0	8.0	30.0 / 34.0	1.0 - 4.0	25
53112937	CLICK BS 32	11 - 21	32,3 (-0,2)	155.0	8.0	36.0 / 40.0	1.0 - 4.0	25

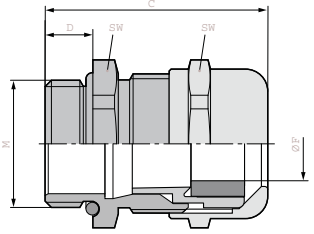
SKINTOP® MS-M / MSR-M

Versatile brass cable gland

SKINTOP® MS-M
UL-File No. E79903

Application
Cable gland with metric connecting thread according to EN 50262. For use in areas with high demands on special mechanical and chemical stability, e.g. in:
- Machine and apparatus construction
- Measurement and control technology
- Chemical industry
- Plant engineering and construction
- Medical-technical equipment

Note
- For suitable accessories see SKINTOP® metric accessories in main catalogue 07/08
- Counter nut to be used SKINDICHT® SM-M



SKINTOP® MSR-M
UL-File No. E79903

Application
Brass cable gland with metric connecting thread in accordance with EN 50262, fitted with a reduction seal insert to seal cables and wires with a smaller outer diameter.

Note
- For suitable accessories see SKINTOP® metric accessories in main catalogue 07/08
- Counter nut to be used SKINDICHT® SM-M

Technical Data

Caution
SKINTOP® MS-M
Installation dimensions and tightening torques
see T21
SKINTOP® MSR-M
Installation dimensions and tightening torques
see T21

Approvals
SKINTOP® MS-M
UL, CSA, DNV approval for size M75x1,5 in preperation
SKINTOP® MSR-M
UL, CSA, DNV approval for size M75x1,5 in preperation

Material
SKINTOP® MS-M
Body: Nickel plated brass
Insert: Polyamide
Seal: CR
O-ring: NBR
SKINTOP® MSR-M
Body: Nickel plated brass
Insert: Polyamide
Seal: CR
O-ring: NBR

Degree of protection
SKINTOP® MS-M
IP 68 - 5 bar
SKINTOP® MSR-M
IP 68 - 5 bar

Range of temperature
SKINTOP® MS-M
-30°C up to + 100°C
SKINTOP® MSR-M
-30°C up to + 100°C

Part number	Part designation / size	Clamping range ØF mm	Overall length C mm	Thread length D mm	SW mm	Pieces / PU
	SKINTOP® MS-M					
53112000	12 x 1,5	3-7	26.5	6.5	16.0	100
53112010	16 x 1,5	4,5-10	32.0	7.0	20.0	100
53112020	20 x 1,5	7-13	35.5	8.0	24.0	50
53112030	25 x 1,5	9-17	37.5	8.0	29.0	25
53112040	32 x 1,5	11-21	42.2	9.0	36.0	25
53112050	40 x 1,5	19-28	49.5	9.0	45.0	10
53112060	50 x 1,5	27-35	52.0	10.0	54.0	5
53112070	63 x 1,5	34-45	61.3	15.0	67.0	5
53112080	63 x 1,5 plus	44-55	65.5	15.0	75.0	5
53112510	75 x 1,5	58-68	105.0	15.0	95.0	1
	SKINTOP® MSR-M					
53112100	12 x 1,5	1-5	26.5	6.5	16.0	100
53112110	16 x 1,5	2-7	32.0	7.0	20.0	100
53112120	20 x 1,5	5-10	35.5	8.0	24.0	50
53112130	25 x 1,5	6-13	37.5	8.0	29.0	25
53112140	32 x 1,5	7-15	42.2	9.0	36.0	25
53112150	40 x 1,5	15-23	49.5	9.0	45.0	10
53112160	50 x 1,5	22-29	52.0	10.0	54.0	5
53112170	63 x 1,5	28-39	61.3	15.0	67.0	5
53112511	75 x 1,5	53-63	105.0	15.0	95.0	1

New

SKINTOP® MS-SC-M BRUSH / BRUSH plus

Easy to assemble EMC safe cable gland for large cable cross sections

CE RoHS

SKINTOP® MS-SC-M BRUSH

Application
The SKINTOP® MS-SC-M BRUSH offers the possibility to centre, fix, strain relief and hermetically seal the cable in one work step (IP 68). Insert the cable, push the screen braid under the innovative EMC brush, tighten and connection is made.
For earthing large, screened cable cross-sections, e.g. in the range:

- Plant engineering and construction
- Automotive systems
- Conveyor technology
- Machine tool manufacturing
- Paper industry
- Air conditioning installations
- Packaging industry
- Textile production
- Servo drives
- Frequency converter

Advantage
- Faster, easier screen contact
- Maximum assembly and adjustment possibility
- Optimal low-resistance screen contact
- Faster than any other comparable system
- Simplest assignment
- Uncomplicated and reliable

Note
- For painted, anodised or powdered-coated housings, you will require our EMC counter nut SKINDICHT® SM-PE-M for best contact

Technical Data

Caution
Installation dimensions and tightening torques see T21

Material
Body: nickel plated brass
Insert: polyamide
Seal: special elastomer
O-ring: special elastomer

Degree of protection
IP 68 - 5 bar

Range of temperature
dynamic: -30°C up to +100°C

Part number	Part designation / size	Outer-Ø mm from - to	Minimum Ø above braiding in mm	Thread length D mm	SW mm	Pieces / PU
	SKINTOP® MS-SC-M BRUSH					
53112676	25 x 1,5	9.0-17.0	6.0	8.0	29.0	10
53112677	32 x 1,5	11.0-21.0	2.0	9.0	36.0	1
53112678	40 x 1,5	19.0-28.0	15.0	9.0	45.0	1
53112679	50 x 1,5	27.0-35.0	20.0	10.0	54.0	1
53112680	63 x 1,5	34.0-45.0	25.0	15.0	67.0	1
53112681	63 x 1,5 plus	44.0-55.0	30.0	15.0	75.0	1
53112501	75 x 1,5	53.0-63.0	40.0	15.0	95.0	1
53112500	75 x 1,5 plus	58.0-68.0	40.0	15.0	95.0	1

SKINDICHT® SM-M
Counter nut

Application
Hexagonal counter nut made from brass with metric thread to EN 50262.

Counter nuts are needed wherever a gland has to be countered or thin walled housings only allow through holes.

SKINDICHT® SM-PE-M
Earth potential bonding counter nut

Application
The SKINDICHT® SM-PE-M counter nuts with metric thread in accordance with EN 50262 are required wherever lacquered, anodised and powder coated housings are used. When the nut is tightened, the cutting edges cut through the insulating layer, thus guaranteeing an optimum contact.

Suitable for metric glands used in earthing and EMC applications.

Technical Data

Material
SKINDICHT® SM-M
Nickel plated brass
SKINDICHT® SM-PE-M
Nickel plated brass

Part number	Part designation / size	Thickness mm	SW mm	Outer Ø mm	Pieces / PU
	SKINDICHT® SM-M				
52103000	12 x 1,5	3.0	15.0	16.5	100
52103010	16 x 1,5	3.0	19.0	20.9	100
52103020	20 x 1,5	3.5	24.0	26.4	100
52103030	25 x 1,5	4.0	30.0	33.0	100
52103040	32 x 1,5	4.0	36.0	39.6	100
52103050	40 x 1,5	5.0	46.0	50.6	50
52103060	50 x 1,5	5.0	60.0	66.0	50
52103070	63 x 1,5	5.0	70.0	77.0	25
52103071	75 x 1,5	8.0	75.0	95.0	5
	SKINDICHT® SM-PE-M				
52103300	12 x 1,5	3.5	15.0	16.5	100
52103310	16 x 1,5	3.5	19.0	20.9	100
52103320	20 x 1,5	3.7	24.0	26.4	100
52103330	25 x 1,5	4.2	30.0	33.0	50
52103340	32 x 1,5	4.7	36.0	39.6	50
52103350	40 x 1,5	5.5	46.0	50.6	25
52103360	50 x 1,5	5.5	60.0	66.0	10
52103370	63 x 1,5	7.0	70.0	77.0	10
52103371	75 x 1,5	8.0	75.0	95.0	5

New

SILVYN® HIPROJACKET cable conduit system

Heat resistant protective conduit

RoHS

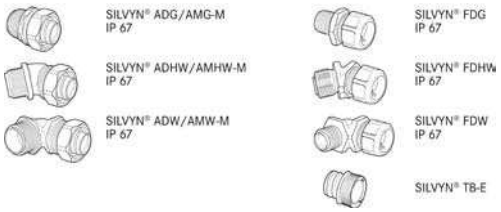
SILVYN® HIPROJACKET
close meshed fiber glass conduit with iron oxide silicone coat

Application
SILVYN® HIPROJACKET is a heat protective conduit, which even resists extreme heat and further protects cables and wires from hot sparkles or blaze. Due to its closed meshed fibre glas conduit, cables and wires can be cooled down up to 30 % less then the outer temperature. This is the reason why the SILVYN® HIPROJACKET heat protection system is frequently used in following applications:

- plastics industry
- steel industry
- Plant engeneering and construction
- kiln engeneering
- Everywhere cables and wires are exposed to extreme heat

Special feature
- **extremly heat resistant up to + 1640°C**
- **up to 30 % heat reduction compared to outer temperature**
- **in conjunction with SILVYN® AMG glands and HIPROJACKET CR clamp rings a safe system.**

SILVYN® HTDL/EF/OR/HCX/HFX/HIPROJACKET



Technical Data

Approvals
NFF 16-101 I2 (french railway)

on request
further sizes up to NW 127
SILVYN® HIRPOSILTAPE heat resistant insulating tape to increase the degree of protection

Colour delivered
conduit: red

Material
conduit: fiber glass with iron oxide silicone coat
clamp ring: nickle plaited brass

Degree of protection
in combination with HIPROJACKET CR und AMG-M conduit gland IP54
IP67 if HIPROSILTAPE is used

Range of temperature
-40°C up to + 260°C operating temp.
+1090°C approx. 20 minutes
+1640°C approx. 15-30 seconds

Part number	Part designation / size	Anamet designation	Internal Ø x External Ø in mm	Nominal size	PU in m/Pieces
	SILVYN® HIPROJACKET protective conduit				
52021385	SILVYN® HIPROJACKET NW 6	336.006.1	6.0 x 15.0		15
61713003	SILVYN® HIPROJACKET NW 10	336.010.1	10.0 x 15.0		15
61713005	SILVYN® HIPROJACKET NW 13	336.013.1	13.0 x 18.0		15
61713007	SILVYN® HIPROJACKET NW 16	336.016.1	16.0 x 22.0		15
61713010	SILVYN® HIPROJACKET NW 19	336.019.1	19.0 x 25.0		15
61713011	SILVYN® HIPROJACKET NW 22	336.022.1	22.0 x 28.0		15
61713000	SILVYN® HIPROJACKET NW 25	336.025.1	25.0 x 31.0		15
61713014	SILVYN® HIPROJACKET NW 29	336.029.1	29.0 x 35.0		15
61713015	SILVYN® HIPROJACKET NW 32	336.032.1	32.0 x 38.0		15
61713016	SILVYN® HIPROJACKET NW 35	336.035.1	35.0 x 41.0		15
61713017	SILVYN® HIPROJACKET NW 38	336.038.1	38.0 x 44.0		15
61713018	SILVYN® HIPROJACKET NW 41	336.041.1	41.0 x 47.0		15
61713019	SILVYN® HIPROJACKET NW 51	336.051.1	51.0 x 57.0		15
61713025	SILVYN® HIPROJACKET NW 64	336.064.1	64.0 x 70.0		15
61713027	SILVYN® HIPROJACKET NW 70	336.070.1	70.0 x 76.0		15
	SILVYN® HIPROJACKET CR clamp ring for HIPROJACKET				
61713030	SILVYN® HIPROJACKET CR 13	817.512.0		13	1
61713031	SILVYN® HIPROJACKET CR 16	817.516.0		16	1
61713032	SILVYN® HIPROJACKET CR 22	817.520.0		22	1
61713033	SILVYN® HIPROJACKET CR 25	817.526.0		25	1
61713034	SILVYN® HIPROJACKET CR 35	817.535.0		35	1
61713035	SILVYN® HIPROJACKET CR 38	817.540.0		38	1
61713036	SILVYN® HIPROJACKET CR 51	817.550.0		51	1

FLEXIMARK® Marking system

Software for marking system with new WSCAD interface

NEW

Benefit

Labels on single cores, cables and control cabinets need to remain legible for years to come. This is the best way to keep things well organized and avoid potential problems. From plastic to durable stainless steel, manual or electronic identification, with FLEXIMARK® you can be sure that your labels will last a lifetime.

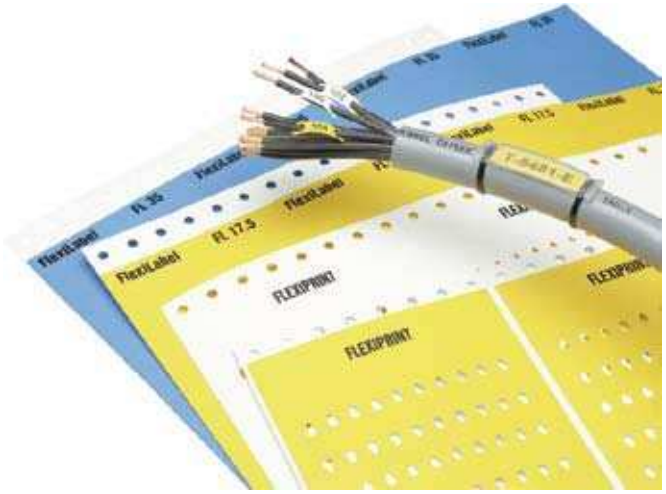
Application

The FLEXIMARK® marking software allows you to print on many types of labels. Any of the Microsoft® Windows options can be used to add lettering e.g. graphics, cliparts, fonts and sizes to the labels. The integral text editor allows you to achieve exactly the result you want, quick and easy, when capturing labels. Equally simple is the data import, individual logo saving and barcode application functions.

An interface to a variety of CAD programs enables time-saving and optimal data transfer directly to the FLEXIMARK® marking software. Interfaces with EPLAN and WSCAD are already available.

Advantages

- WSCAD offers some more unusual ones to make the production of circuit and wiring diagrams quick and easy. In combination with FLEXIMARK® marking software the work is done in one step.
- The program is particularly suited to small and medium-sized companies because of its simplicity of integration and intuitive “learnability”.
- Circuit diagrams for a wide range of applications such as control and automation technologies, measuring and regulating equipment, hydraulics, pneumatics, power engineering, electronics, control cabinet layouts



WSCAD www.WSCAD.de CAD/CAE für die Elektrotechnik

Further information on FLEXIMARK® marking software, as well as a free trial download can be found at

www.lappkabel.de

Please click flag **English**, **Brands**, **FLEXIMARK®**

New

DYMO® manual label printer

Industrial DYMO®

DYMO® Rhino 6000 Kit
The mobile label printer for the industrial industry

General description
The new industrial printers simplify labelling of components for installation technicians and tradesmen in the field of electrical engineering and Datacom. New high-performance labels ID1 with a strong adhesive assure durable, smudge proof and scratch proof lettering. The flexible NYLON- or VINYL straps are especially well-suited for uneven surfaces and cable marking, the permanent POLYESTER straps for reliable marking indoors or outdoors Heat shrink tubing cartridges are ideal for cable marking.

Electrical applications
- **Labelling of cables and wires**

Creating of wrap or flag labels. The cable diameter determines the label length.
- **Labelling of terminal blocks**

Simple and exact positioning of the text by the individual terminals with only one label.
- **Labelling of modules and components**

Several different sized modules can be marked simultaneously with only one label with exact positioning of the characters.
- **Labelling of patch panels and protective sockets**

Simple and exact positioning of the text by the individual connections with only one label.

Equipment
DYMO® Rhino 6000 Kit
- With PC interface and software. For instance, E-Plan data can be stored on the memory card and printed on site.
- With direct access to the various label layouts such a cable, patch panel and component designation.

Scope of delivery
DYMO® Rhino 6000 Kit
- RHINO 6000 printer
- RHINO CONNECT Software
- hard case robust
- two D1 tapes incl.
  - Nylon tape BK/WH 24mm
  - Vinyl tape BK/WH 9 mm
- Li-Jon storage battery
- power supply pack and USB cable
- short user manual and registration card

Accessories
ID1 - Industrial D1 labels see page 842 main catalogue

Technical Data

RAL Colour delivered
black, yellow and white

Material
Due to the fact of the thermal transer printing technology the labels are really durable and indelible.

Part number	Part designation / size	Pieces / PU
	DYMO® Rhino Pro 6000 Kit	
61800360	RHINO 6000 printer	1
61800251	Battery pack	1
61800150	AC adapter 9 Volt	1

DYMO® is a registered trademark of Sanford GmbH,a Newell Rubbermaid Company

Assembly tool for cable ties

For plastic cable ties

TY-GUN ERG 50
TY-GUN ERG 120
Installation pistol

Application
The cable tie tool TY-GUN allows quick and economical binding, fixing and mounting of cable ties. The ergonomical design, user-friendly properties and suitability for use in places which are difficult to access makes assembly work seem like child's play.
Clamps and cuts the cable ties in a work section.

Special feature
- less force required to secure the cable tie correctly
- adjustable tension setting, automatic cutting mechanism
- Tip rotatable by 360° for easy assembly position
- Anti-recoil mechanism prevents shaking
- large feed opening makes inserting the cable ties easier

Note
Exchangeable head depends on the cable tie width is available as a component

Accessories
TY - FAST® standard see page 924 main cataloge

Technical Data

Caution
Tension: manual adjustable

General
Cable tie width:
TY-GUN ERG 50 2,4 - 4,8 mm
TY-GUN ERG 120 4,8 - 7,6 mm
Tip rotatable by 360° for easy assembly position

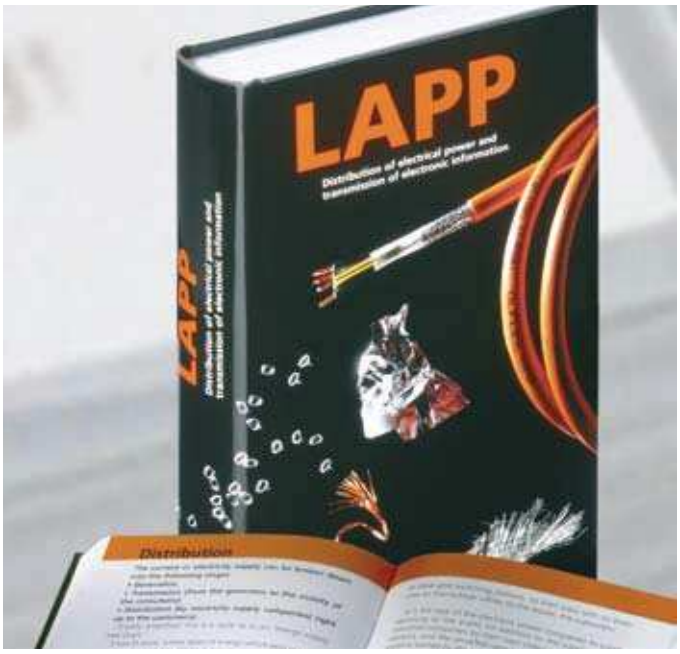
Note
Length (mm) x Width (mm) x Height (mm)
200x125x25

Colour delivered
orange
black

Material
shock resistant Polymere
soft rubber grup

Part number	Part description	for cable ties	Cable tie width, mm	Handle colour	Weight g	Pieces / PU
	Mounting pistol TY-GUN ERG 50					
62120120	Mounting pistol TY-GUN ERG 50	Plastic	2.4 - 4.8	black	240.0	1
62120121	TY-GUN ERG 50B Spare part knife	Plastic	2.4 - 4.8			1
62120122	Exchangeable head TY-GUN ERG 50	Plastic	2.4 - 4.8			1
	Mounting pistol TY-GUN ERG 120					
62120125	Mounting pistol TY-GUN ERG 120	Plastic	4.8 - 7.6	black	240.0	1
62120126	TY-GUN ERG 120B Spare part knife	Plastic	4.8 - 7.6			1
62120127	Exchangeable head TY-GUN ERG 120	Plastic	4.8 - 7.6			1

Notices



Guide, advisor, reference book

In this book, the reader will find all that is worth knowing about the generation, use, and distribution of electricity, as well as the technology of data communication, cables, control cables, and optic fibres. All of these topics are illustratively described and supplemented with articles, tables and specialist terminology.

This is a book both for trainees and experienced practitioners. It is available in German, English or Russian.

The new Lapp Cable Guide

In our “Lapp Cable Guide“ you will find many of the technical terms used in the electrical industry. From A as in “absorption“ to Z as in “zinc“, the terms are listed in alphabetical order and accompanied by a short but concise explanation.

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The English translation is also provided, along with many tables and overviews.

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Without exception our products are tested for application safety in accordance with laid down standards and our own regulations, which complement the standards. Relevant legal requirements and safety regulations are also observed. Provided due care and attention is paid, the possibility of product-specific danger to the user may thus reasonably be excluded. Where products are used carelessly or incorrectly, however, considerable danger to persons and the environment may arise. For this reason, our cables must only be processed and /or used responsibly by trained electricians or specialists. This catalogue contains general information for the application of each product. Independent of such information, the application standards DIN VDE 0298 and DIN VDE 001 for cables will apply. Excerpts from these standards, as well as complementary selection and application tables, design and installation guidelines, are contained in the tables in the appendix to this catalogue. Our machines and installation tools are – where necessary – designed in accordance with the machine guidelines and display the CE identification mark. It must be noted, however, that our machines and installation tools must only be used by trained specialized personnel and for the purpose for which they were designed.

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